

FUNCTIONAL BARRIERS AGAINST MIGRATION OF CONTAMINANTS INTO PACKED FOODSTUFF

Solutions for Functional Paper Packaging

Depending on available application equipment BASF offers three different barrier solutions.

Barrier I
ecovio® PS



$$\left[\text{M} \left[\text{O}-\text{C}(=\text{O})-\text{C}_6\text{H}_4-\text{C}(=\text{O}) \right] \left[\text{O}-(\text{CH}_2)_4 \right] \left[\text{O}-\text{C}(=\text{O})-(\text{CH}_2)_4-\text{C}(=\text{O}) \right] \right]_n$$

Barrier II
Ultramid®



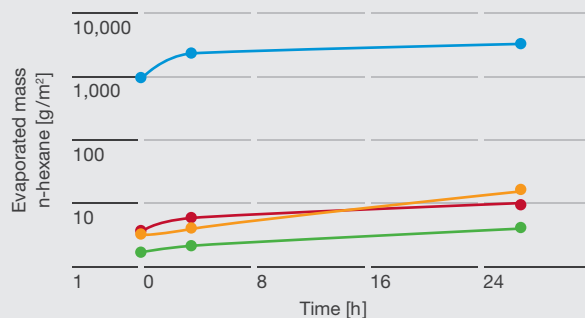
$$\left[\text{N}-(\text{CH}_2)_5-\text{C}(=\text{O}) \right]_n$$

Barrier III
Epotal® SP-101D



$$\left[\text{CH}_2-\underset{\text{COOR}}{\text{CH}} \right]_n$$

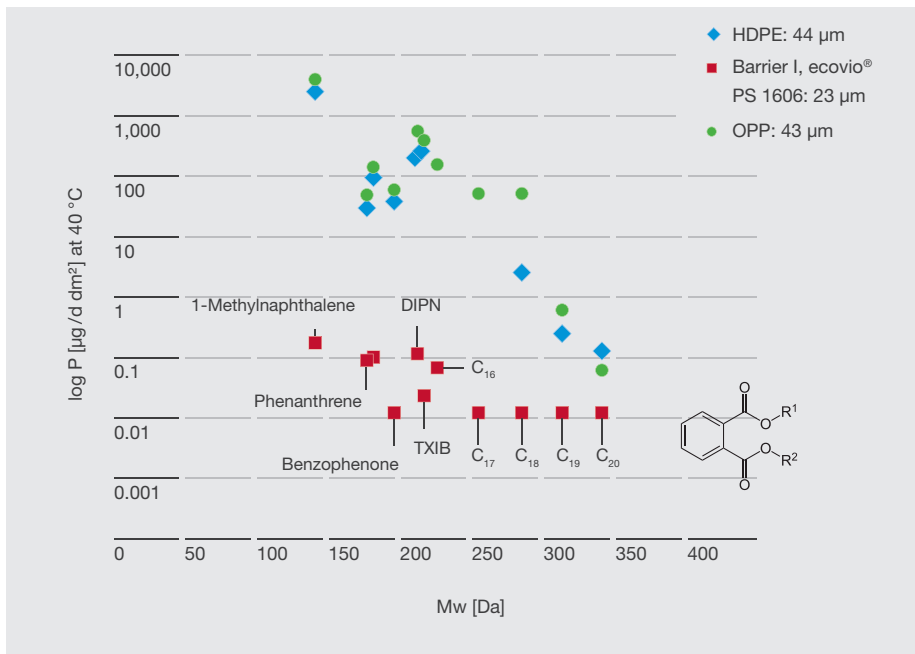
Semi-quantitative testing method, quantity of hexane vapor that passes under controlled conditions from an evaporation chamber through the exposed surface of a packaging sample is determined.



- Card board 300 g/m²
- Card board 300 g/m² + Barrier I: 18 µm
- Card board 300 g/m² + Barrier II: 15 µm
- Card board 300 g/m² + Barrier III: 15 µm



1. Closure with barrier
2. Evaporation cell
3. Barrier sample
4. Sealing



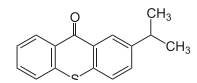
Using recycled paper board protected with migration barriers is a contribution to functional packaging of food.



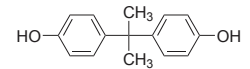
BASF Corporation
Functional Packaging
24710 West Eleven Mile Road
Southfield, MI 48034
dpsolutions@basf.com
www.basf.us/functionalphackaging

Contaminants with gas phase migration potential

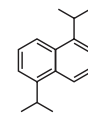
ITX



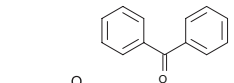
Bisphenol A



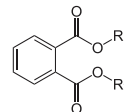
DiPN



Benzophenone

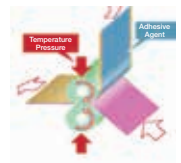


Phthalates

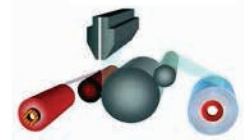


Application techniques

Lamination with barrier film (e.g. Ultramid®; ecovio®)



Extrusion coating with barrier polymer (e.g. Ultramid®; ecovio®)



Coating / printing with barrier dispersion (e.g. Acrylic dispersion)

